DNFSB RECOMMENDATION 2000-2 WORKSHOP

LAS VEGAS, NEVADA

May 8 - 9, 2001

Welcome and Introduction:

Mike Oldham (EM)

Mike welcomed the participants to the second workshop. He congratulated them on the tremendous progress that they had helped to achieve since the workshop at Livermore. In particular, he thanked Dan Burnfield and his fellow Board staffers and the Board members, and Mike Mikolanis for their participation that provided to be very helpful in making the January workshop a turning point. Mike briefly reviewed the agenda for the second workshop with emphasis on goals for moving forward.

Neal Goldenberg (EH)

Neal stated that DNFSB Recommendation 2000-2 is one of the most important recommendations that the Board has ever given DOE. This Recommendation has given us a chance to step back and look at what we do. The activity associated with this recommendation will ensure that if our safety systems are ever called on to function in an unanticipated event, they will perform as designed. Neal also stated that this workshop is not for the Headquarters but rather is for the field to discuss their issues. We are making good progress toward meeting the DOE commitments.

Dick Crowe (DP) (Speaking for Ralph Erickson)

Dick stated that Ralph is proud of the progress made since the LLNL workshop in January. We were behind schedule for awhile but are now back on track and need to keep moving forward and to see the meaning in what we are doing to ensure our systems work. We need to improve Configuration Management and make sure that CM is an integrated program with our other facility management practices.

Status Briefing:
Comprehensive Fire Study - Frank Russo

Frank stated that the Comprehensive Fire Study is being completed as an Office of Independent Oversight review. In performing a Comprehensive Fire Safety Review, it will be important to ensure that we are not duplicating efforts related to Phase II assessments. The fire reviews will use a different CRAD then the one used for Phase II assessments but the two are very similar, and it was determined that the CRAD being used for the fire review will accomplish all that is needed for a Phase II review. Thus, a site won't have to do both a Phase II and a fire safety review, if a fire protection VSS is selected as part of the Comprehensive Fire Study. If either one is done, the results will be shared with the field so that the other assessments will not be needed.

Status Briefing:
Confinement Ventilation System Assessment Criteria Development - Ed Blackwood

Ed discussed the development of the ventilation system assessment criteria and next steps. He stressed that the criteria focus on Confinement Ventilation (CV) systems, not on other broader issues that may need to be looked at as part of Phase II. The draft schedule was reviewed, including team formation and pilot facility selection, the CV assessments for one site, and revision to the criteria after the two pilots are completed. Ed stated that he will revise the schedule once the second pilot facility is selected.

The Brookhaven Experience - Frank Crescenzo

Frank discussed the history of the closing of the Brookhaven High Flux Beam Reactor. After the presentation, Neal Goldenberg commented that he had asked Frank to give the presentation to show what can happen when DOE doesn't address issues, meet legal requirements, or pay attention to the concerns of the local population.

BREAKOUT 1 - Analysis of Phase I Data and Phase II Decision Making. - Carol Sohn

Carol reviewed the current draft approach for evaluating Phase I results and deciding when and where to do a Phase II assessment. During the opening discussion, Carol stated that DOE would have to do some Phase IIs. She was asked why we would have to do Phase IIs if the Phase I didn't indicate a need for one. The Defense Board knows that there are DOE systems that are not working properly and would require a Phase II so the Board will not accept no Phase IIs. Focus will be on Safety Class and Safety Significant systems. Carol reviewed potential criteria (attributes) to be used to gather input on Phase I results. Seventeen attributes were developed based on the Phase I CRAD. The 17 attributes were tested by EM and DP at Headquarters on Phase I data to see if the criteria could be easily completed. This test demonstrated that this process should work. Several issues were raised by the meeting participants, and each is discussed below.

ISSUES:

1. The Field will have trouble deciding between a major or minor issue and identifying the proper color code for each of the attributes. Participants requested more guidance on color codes. A white box, for instance, may or may not indicate a problem.

   Resolution: Jeff Kimball (DP-45) will revise the approach for evaluating Phase I VSS assessments and provide additional guidance on the color codes. *Action due date 5/18/01.*

2. We should use input from the DNFSB as part of the selection criteria for Phase II Assessments. We should crosswalk Board comments, Phase I results, Occurrence Reports, etc. as part of the Phase II selection process.

   Resolution: The Field Offices will address Board, EH, and other concerns in the chart coloring if not addressed as part of the Phase I assessments. Thus no separate actions is necessary. Issue considered closed.

3. How do we address screening for Phase II if a site has not done a Phase I, which were only done on Appendix E facilities?

   Resolution: The decision process for selecting Phase II assessments was discussed in detail, specifically the potential candidate areas for Phase II's and the scope of Phase II assessments. Jeff Kimball (DP-45) will revise the approach for evaluating Phase I VSS assessments and provide additional guidance on the types of potential candidate areas for Phase II reviews and the scope of potential Phase II assessments.. *Action due date 5/18/01.*

4. Can Headquarters override a Field Office assessment result?

   Resolution: HQ can override a Field Office assessment but this should be rare, and there is expected to be dialog between HQ and the Field so that both parties can understand the issues and decision being made. Issue considered closed.

5. Headquarters should publish the scope of the Phase II assessments - Safety Significant, Safety Class, or all Vital Safety Systems.

   Resolution: The proposed methodology for the evaluation of Phase I Assessment results and selection criteria for a Phase II Assessment were discussed. An attempt was made to make it clear when a Phase II assessment would be limited to a Safety Class or Safety Significant VSS, and when a Phase II assessment may be performed on facilities outside of Appendix E. The write up associated with the proposed methodology will be revised to address these issues.

   Resolution: Jeff Kimball (DP-45) will revise the approach for evaluating Phase I VSS assessments and provide clarification on the scope of Phase II assessments. *Action due date 5/18/01.*

6. Provide more guidance on how the trend analysis will be done, i.e., difference between green and yellow, yellow and red.

   Resolution: All green may not necessarily mean that there won't be a Phase II and all red may not mean that a Phase II will have to be done. That's why we have a two Step approach to evaluated the color codes. HQ will look for trends, especially in red and or yellow areas, and identify candidates for Phase II. These candidates will be reviewed by all parties to make the final selection. Candidates for Phase II are expected to be "outliers" in comparison to the larger data base. While we do not have an exact definition for "outlier", it is intended to be a relatively small subset of the total data base. Issue considered closed.

7. Need a feedback loop to the contractor at the facility. We need to let the contractor understand how the rating colors were assigned and why the decision was made to do a Phase II.

   Resolution: The Field Office will work with the contractor on input to Headquarters before it is submitted to ensure nothing is missing. The Field Office owns the data on the color chart. The process for deciding if and when a Phase II assessment is needed will include interaction between HQ and Field Offices once candidates for Phase II are identified. Issue considered closed.

8. The 17 Attributes used in the evaluation are not weighted. They are only used as a guide and are in no significant order. Need feedback as to whether the workshop attendees believe the 17 attributes are acceptable for use as an evaluation tool.

   Resolution: Input from the field on major issues with using the 17 attributes is due to EM/DP before the next Executive Team meeting scheduled for May 23rd. EM and DP should discuss during the weekly conference calls. *Action due by 5/18/01 to support and changes with evaluation process to be presented to Executive Team on 5/23/01.*

9. Resource issue - How are direct and indirect costs tied together prior to a Phase II?

   Resolution: We need to develop a process so that prior to Step 2 selection, Field Offices will identify direct and indirect impacts which include mission impacts and availability of personnel, that will be considered in decision making regarding Phase II schedules. Field Offices should work with HQ line management in scheduling Phase II assessments once Phase II VSSs are selected. No separate action needed.

10. Reference Commitment #6 - What does it mean if Phase I doesn't provide enough data to look at other then Appendix E facilities? How do we do a Phase II?

    Resolution: The evaluation process write-up will address this issue. Phase I is Appendix E facilities only. Phase II is not limited to only Appendix E facilities. If evaluation of Phase I result indicates that systemic issues exist (either programs or systems), and non-Appendix E facility could be included in the Phase II assessment. Jeff Kimball (DP-45) will revise the approach for evaluating Phase I VSS assessments and provide clarification on the scope of Phase II assessments. *Action due date 5/18/01.*

BREAKOUT 2 - Commitment 21, Annual ES&H Assessments. Requirements for Order 231.1 Revision. - Mike Oldham

Background materials were presented on the Annual Summary Reports submitted in February 2001 that constituted Commitment 20 of the 2000-2 IP. Some discussion was held concerning the reason for Commitment 21 and whether existing reports that some sites prepared for other purposes could be used as the Annual Summary Report that would be submitted to the LPSO. Strawman language prepared by Headquarters on proposed changes to DOE O 231.1 and DOE M 231.1-1 that would institutionalize the summary reports was discussed and consensus on changes in the proposed wording was reached in the breakout session.

The proposed revised language changes for DOE O 231.1 and DOE M 231.1-1 is included below.

Proposed Change to DOE Order 231.1

[**BOLD** indicates existing text of DOE O 231.1 ; *Italics* indicates proposed new text]

11. RESPONSIBILITIES.

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b. Cognizant Secretarial Officers.

(3) Summary Report of ES&H Assessments. Each Secretarial Officer shall, for sites for which they are the cognizant secretarial officer, review the results of ES&H assessments performed during the previous year and provide the Secretary with a summary report for each of the sites in accordance with DOE M 231.1-1, Chapter V.

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d. Heads of Field Elements (Managers and Directors).

(3) Annual Summary Report of ES&H Assessments. Field element managers and directors shall prepare, on an annual basis, a summary of ES&H assessments conducted at sites under their direction, in accordance with DOE M 231-1-1, Chapter V, and submit the summary report to their LPSO.

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CONTRACTOR REQUIREMENTS DOCUMENT
ENVIRONMENT, SAFETY AND HEALTH REPORTING

13. Annual Summary Reports of ES&H Assessments in accordance with DOE M 231.1-1, Chapter V, paragraph 1. Prepare on an annual basis a summary report of ES&H self-assessments conducted by the contractor as input to the Annual Review of ES&H Assessments prepared by the Field Element Manager.

Changes to DOE M 231.1-1

[New] Chapter V

ENVIRONMENT, SAFETY, AND HEALTH ASSESSMENT REPORTS

1. ANNUAL REVIEW OF ES&H ASSESSMENTS

a. Heads of DOE Field Elements shall submit an annual summary report on the environment, safety, and health (ES&H) assessments conducted in the previous calendar year for the sites under their direction to the lead program secretarial officer (LPSO) for their sites. The annual summary report shall be prepared in accordance with Appendix H, *Annual Report on Environment, Safety, and Health (ES&H) Assessments*. The annual summary report for the previous calendar year shall be submitted by the end of March of each year.

b. Each Cognizant Secretarial Officer (CSO) shall review the Annual Reports on Environment, Safety, and Health (ES&H) assessments for the sites under their direction and summarize the information provided. The CSO's summary report for the previous calendar year shall be submitted to the Secretary of Energy by the end of April of each year.

c. The summary of information prepared by the CSO shall contain:

- A summary of the number of assessments conducted by the contractor, DOE line management, the Office of Independent Oversight, and external organizations;

- A summary of the methods used to assess safety systems and programs and the results obtained from these assessments;

- A summary of the corrective actions taken to address the significant issues and the status of the actions.

Changes to DOE M 231.1-1 (cont.)

[New] Appendix H

INSTRUCTIONS FOR ANNUAL REPORT
ON ENVIRONMENT, SAFETY, AND HEALTH (ES&H) ASSESSMENTS

1. Introduction - Describe the implementation of DOE Policy 450.5, Line Environment, Safety, and Health Oversight, and the Integrated Safety Management System (ISMS) at the Site. Include any major site-specific programs that contribute to meeting the policies of ISMS and DOE P 450.5.

2. Summary of ES&H Assessments - Summarize the Environment, Safety, and Health (ES&H) Assessments or Self-assessments conducted at the Site by the DOE Line Management (Headquarters and Field Element), the Management and Operating or Management and Integrating Contractor, the Headquarters Office of Independent Oversight, and external organizations at the direction of DOE Headquarters, the Field Element, or the facility contractor in the previous calendar year. The summary should include assessments such as those conducted by and under the Facility Representative Program, the DOE Field Element Oversight programs, Authorization Basis Reviews, Conduct of Ops, Conduct of Maintenance, QA, and Radiation Protection assessments.

3. Summary of Significant Issues / Corrective Actions / Status of Actions - Summarize the significant issues identified in the ES&H Assessments conducted in the previous calendar year. Summarize the corrective actions identified in the ES&H Assessments conducted in the previous calendar year, and provide the status of the corrective action at the end of the year. This section should also include the status of any corrective actions from past calendar year's reports that were still not completed at the time annual report was prepared.

4. ES&H Assessment Program Improvements - Any lessons learned and any improvements made to the DOE Field Element or Site Contractor ES&H Assessment or Self-assessment program or process as a result of an ES&H Assessment or the preparation of the Annual Report on ES&H Assessments should be discussed.

APPENDIX - LIST OF ES&H ASSESSMENTS CONDUCTED IN CALENDAR YEAR

BREAKOUT 3 - Draft System Engineer Order Requirements. - Bev Ramsey

Why we need System Engineers. - In Recommendation 2000-2, the Board noted the industry practice of designating system engineers. They said "The Board believes that having specific individuals outside the operational forum, tasked with the configuration management (design and operational constraints) of systems designated as important to safety, would go a long way to ensuring the dependable service such systems must provide." They made specific recommendations for establishing System Engineers.

A question was asked about why this Order (*Facility Safety*, DOE O 420.1) was chosen to be modified. Two Orders were considered - *Life Cycle Asset Management* (430.1) and 420.1. Dick Englehart stated that 430.1 may be replaced and 420.1 was sponsored by his office so it made the most sense to change that Order. Dick E. also commented the intent of the changes was to promote a graded approach, define qualification and training requirements, and to follow the guidance in the Implementation Plan. The System Engineer would see that all the work gets done but doesn't have to do all of the work himself. The Order will apply to contractors, not Federal employees.

The following comments and issues were discussed:

- In paragraph 4.5.2 of the changes to 420.1, the references to DOE O 5480.20 should be revised to more clearly define the System Engineer requirements. Some suggested to write the requirements in 420.1 directly instead of referencing 5480.20. Another suggestion was to incorporate the language in paragraph 1.13a of 5480 into the 420.1 changes to allow for experience instead of straight educational requirements in System Engineer qualifications.

- Since DOE has extended ISM to all facilities, is it to restrictive to limit the System Engineer program to Hazard Category 1, 2, 3 facilities? Should we have the same rigor and discipline applied to non nuclear facilities? The recommendation was that application to non-nuclear facilities should not be precluded, but rather left up to the facility manager to decide what is needed.

- Paragraph 4.5.1.1 Configuration Management, should concentrate on functions, not how to do the job. The paragraph should require the contractor to have a Configuration Management program, the program to have a System Engineer, then list the functions. A bullet format to show System Engineer responsibilities under configuration management would be a good way to so this, and the paragraph should cover responsibility for design modification. Rick Kendall will provide a mark-up to Dick Englehart.

- Assessment of System Status and Performance - should say the "System Engineer program will ----"

- Technical Support for Operations and Maintenance Activity - should say “System Engineer program should —“

- If the paragraphs are changed to list functions, then the need for the “designee” would go away. Could change to say that the System Engineer would ensure that the functions were done. We should also look at removing the word “shall” from the text.

- Suggestion made to change “configuration management function” to a System Engineer function.

- The Defense Board representative expressed concern about making the System Engineer requirement a “program”.

- Paragraph 4.5.3 Graded Approach - Suggestion was made to move this paragraph up front to let the reader immediately see the graded approach discussion.

Dick Englehart asked participants to provide him their comments and also enter them in REVCOM for the official Order change review process.

BREAKOUT 4 Implementation Plan Time line Issues. - Mike Mikolanis

The group discussed the current Implementation Plan schedule and possible options. Mike took input to work up a revised schedule for Executive Team discussions. The following issues were discussed and will be considered by Mike.

- Commitment deliverable due dates are not clear. Time for field and Headquarters review has not been included. Two weeks are needed for Field Office review of contractor data and another two weeks are needed for Headquarters review.

- Some suggested we need to finish Phase I before we can begin the Confinement Ventilation pilots. We can do up front planning, select facilities, select teams, etc. but cannot begin the assessments. There are resource issues and information needed issues to be resolved.

- Options for revising the schedule for Confinement Ventilation and Phase II assessments:

    - Keep logic the same (complete all Confinement Ventilation at the same time we start assessing selected systems for Phase II) but reschedule to reflect Pilot assessment completion.
    - Change logic to merge Commitment 11 with Commitment 6 (Start CV and VSS assessments at the same time)
    - Stick to logic but allow overlap of assessments. (CV assessments not finished before starting VSS Phase II)
    - Throw in all CV systems and decide which ones to assess by using the Phase I assessments as a screening process, just like all other VSS.

- Importance to safety regarding VSS (Defense in Depth) confinement ventilation systems.

- Piggy Back Phase II Pilots with TSR Implementation Review.

- Resources (expertise) to support confinement ventilation assessments that need to be completed before VSS Phase IIs. This is a timing issue.

- The FTCP should determine the relationship between the Federal and Contractor programs.

- When does Independent Oversight review the System Engineer program? Is it November 2001, or 1 year after the System Engineer guidance actually got on the street?

- What is the date for the annual ES&H Assessments? The IP specifies February 2001 and 2002. The Order change is going to say April to give time to prepare the reports on a calender vice fiscal year schedule.

BREAKOUT 5 - Implementation Issues with Confinement Ventilation and Phase II Assessments. - Mosi Dayani

The following questions were discussed, with answers provided at the workshop to the extent possible.

1. What organization in DOE is responsible for meeting the pilot assessment due date? We need a champion to promote the pilots. Who is the lead responsible for planning and overseeing the pilot assessments?

   ANSWER - The Executive Team has overall responsibility for meeting the pilot due dates. There needs to be an overall integrator and the Executive Team needs to decide on how the pilot assessments will be managed. Ralph Erickson (DP) and Mike Oldham (EH) are the leads for planning the pilots in their organizations. EH will make a decision by May 8 on the Champion but it may not be Ed Blackwood who was suggested by the workshop attendees.

2. What are the two facilities to be assessed under the pilot program?

   ANSWER - EM has selected the H Canyon facility at SRS. DP will choose between TA-55 or Bld 332 by 5/14/01. DP must decide, if not the Executive Team will decide.

3. Who will be the team leaders and who will be on the teams?

   ANSWER - EM has submitted a list of candidates. Bill Boyce and Jeff Kimball will decide on team membership after we decide if there will be one or two teams and decide on the pilot facilities to be assessed. Bill and Jeff can complete the selection within two days after the pilot facility is picked. There will be two team leaders which Ed Blackwood will train.

4. How many teams will we have - One or Two?

   ANSWER - There will be a list of names which will constitute the team as indicated in the Implementation Plan. From the list, assessors will be selected based on availability for each pilot assessment. There will be sufficient overlap of membership such that we will not have two separate teams. It is expected that team membership will be included in the announcement expected from the Executive Team on about May 23rd.

   NOTE: Keep in mind the purpose of the pilot is to test CRAD not to train people.

5. What is the schedule for the Pilots?

   ANSWER - Ed Blackwood's schedule will be followed subject to minor adjustments based on availability of team members, minimizing impact to facility, and other issues. LLNL mentioned that if selected, they may not be able to support the pilot assessment until August. It was decided that August would be too late and could impact the whole 2000-2 schedule. The schedule was to be kept in mind when selecting a DP facility for a pilot assessment.

6. Have we allowed time to capture feedback and incorporate into the CRAD?

   ANSWER - Yes. Seven days have been allowed in the schedule after pilots are done. Team leads should work with facilities to see what worked and what didn't. The Pilot Champion will promote this effort.

7. What is the scope of Commitment 11?

   ANSWER - The Implementation Plan implies that we will do all of the VSSs. DP is starting a dialogue to recommend what should be done. Mike Mikolanis will prepare a paper for Executive Team decision, resolve the issue, and report back to all POCs by June 14.

8. Who would select teams and leaders for the follow-ons?

   ANSWER - The Field Offices will decide and Field personnel from DOE federal and /or contractor organizations will staff the teams.

9. Can we capture costs of doing pilots and the impact on the facility? Who funds travel?

   ANSWER - Each person traveling is responsible for funding travel through their own organization unless other arrangements are made in advance. Following each pilot assessment, the pilot facility will identify the resources, including work hours, that were required to support the assessment. This will be shared for future planning.

10. Do we have to do all four pieces of the CRAD for both pilots?

    ANSWER - We need to do all four to validate - that's the point of the pilot assessment.

11. Will we provide feedback to the pilot hosts to ensure that the facility owners get the assessment results?

    ANSWER - Time for feedback is built into the schedule. Feedback will be provided in an exit briefing and a copy of the assessment report will be provided to the facility**.** The team will work with the facility owner on how the CRAD should be revised upon completion of the pilot assessment. The team will then make a recommendation on changes to the Champion, who will make the final decision.

12. What will be the team make-up - how many members, what expertise?

    ANSWER - Refer to the slide in the presentation by Ed Blackwood. As indicated the team will consist of a Leader, HEPA/HVAC Expert, Mechanical/Nuclear, Electrical I&C, Maintenance, Safety Analysis, and Surveillance/ Testing members.

    We should have a 5 person team; plus or minus depending on the facility.

13. Non-Pilot Assessments - Who will pick the team and leader?

    ANSWER - The Field Office Manager will decide.

Workshop Wrap-up: Issue Resolution/Action Identification - Earl Hughes.

1. Conduct another workshop in Albuquerque after the Pilots are completed.

2. Will send issue lists and resolutions to attendees and post information and copies of briefings on the Web.

3. Need to get the FTCP engaged. Deliverables 18 and 19 are in danger.

4. The next workshop should have a longer range focus; look out the next 6 months.

Closing Remarks

Mike Oldham thanked EH for taking the lead in planning the workshop, thanked Earl Hughes, Jeff Kimball, Bill Boyce, Mike Mikolanis, and Board staff for their hard work preparing for the workshop, and thanked the participants--HQ, field, contractors--for their commitment to the path forward. Mike challenged everyone to commit to the successful discharge of their responsibilities in carrying out this recommendation in accordance with the DOE IP. He challenged the group to begin thinking of how to wrap this recommendation into ISMS and to address this topic at the next workshop.